

**1. Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

1-22. (cancelled).

23. (previously presented) A cleaning apparatus for penetrating and removing deposits from an internal wall of a kiln comprising a rotary drive unit operatively connected to a first end of a drill shaft; a drill bit suitable for drilling said deposits, attached to a second end of said drill shaft and oriented for coaxial rotation therewith; a portion of said drill shaft, intermediate said rotary drive unit and said drill bit, slidably received in a sleeve member permitting rotational and linear displacement of said drill shaft therein; and a fluid jet projecting from an outer surface of said drill shaft proximal said drill bit, said fluid jet in communication with a pressurized fluid source through said drill shaft, said communication comprising a plenum defined by an inner wall of said sleeve member, an outer surface of said drill shaft, and first and second sealing means spaced apart and sealingly engaging said sleeve member and said outer surface.

24. (previously presented) The cleaning apparatus of claim 23, wherein said communication further comprises at least one fluid inlet defined between an outer wall of said sleeve and said inner wall; and at least one aperture defined between said outer surface and a chamber defined internal said drill shaft, said chamber in fluid communication with said fluid jet.

25. (previously presented) The cleaning apparatus of claim 23 wherein said first sealing means is positioned proximal said first end of said drill shaft, and said second sealing means is positioned proximal said second end of said drill shaft.

26. (previously presented) The cleaning apparatus of claim 23 wherein said first sealing means is attached at a first end of said sleeve member, and said second sealing means is attached at a second end of said sleeve member.

27. (previously presented) The cleaning apparatus of claim 23 wherein said fluid jet comprises a fluted venturi aperture comprising: a flared inlet portion, a tapered outlet portion, and a constricted throat portion interposed there between; said flared inlet portion having an inlet diameter greater than an outlet diameter of said tapered outlet portion; and said flared inlet portion having a length substantially shorter than a length of said tapered outlet portion.

28. (previously presented) The cleaning apparatus of claim 27 wherein said fluid jet further comprises a stylus, said stylus comprising a bulbous base portion and a tapered end portion extending axially therefrom, said stylus interposed within said fluted venturi aperture with said bulbous portion juxtaposed said constricted throat portion and said tapered end portion extending therefrom into said tapered outlet portion.

29. (previously presented) The cleaning apparatus of claim 28 wherein said fluted venturi aperture is received in a first bore extending from an outer wall of said drill shaft into a chamber defined internal said drill shaft, and said stylus further comprises a lug portion received in a second bore radially opposed to said first bore, said second bore extending outwardly from an inner surface of said chamber; and said chamber in fluid communication with said pressurized fluid source.

30. (previously presented) The cleaning apparatus of claim 29 wherein said stylus is selectively adjustable along a longitudinal axis of said fluted venturi aperture to impart a desired flow pattern to said pressurized fluid.

31. (previously presented) The cleaning apparatus of claim 23 wherein said kiln is provided with an access port extending from an outer wall of said kiln to said internal kiln wall

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and said sleeve member further comprises an adapter housing extending from an end of said sleeve member proximal said drill bit, and attachment means connecting said adapter housing to said access port.

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